

RF Exposure Report

FCC ID: 2AR2STAB7807RE

Applicant: MMD Hong Kong Holding Limited

Address: Unit 1006, 10th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Manufacturer: MMD Hong Kong Holding Limited

Address: Unit 1006, 10th Floor, C-Bons International Center, 108 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Product: Soundbar speaker

Brand: PHILIPS or



Test Model(s): TAB7807

Series Model(s): See section 2.1

Test Date: Mar. 08, 2022~Mar. 28, 2022

Issued Date: Apr. 19, 2022

Issued By: Hwa-Hsing (Dongguan) Testing Co., Ltd.

Address: No.101, Bld N1, Yuyuan 2Rd, Yuyuan Industrial Park, HuangJiang Town, Dongguan, China

Test Firm Registration No.: 915896

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)
ANSI C63.10:2013

The above equipment has been tested by **Hwa-Hsing (Dongguan) Testing Co., Ltd.**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by :



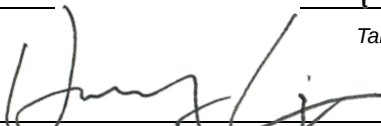
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Table of contents

Release control record	3
1 General Information	4
1.1 General Description of EUT	4
2 RF exposure limit.....	5
2.1 MPE calculation formula	5
3 Calculation result of maximum conducted power	6
Appendix – Information on the Testing Laboratories	7

Release control record

Issue No.	Reason for change	Date issued
220218KH03-SE-US-01	Original Release	Apr. 19, 2022

1 General Information

1.1 General Description of EUT

Product	Soundbar speaker
Brand	PHILIPS or 
Test Model(s)	TAB7807
Series Model(s)	TAB7807RE, TAB7807/10, TAB7807RE/10, TAB7807/37, TAB7807RE/37, TAB7807/98, TAB7807RE/98, TAB7807xx/yy(x=A-Z or blank, yy=00-99 or blank for country code)
Status of EUT	Engineering Prototype
Power Supply Rating	100-240V~ 50/60Hz 40W;
Modulation Type	EDR module: GFSK, $\pi/4$ DQPSK for FHSS BLE module: GFSK for DTS
Transfer Rate	EDR module: 1/2Mbps BLE module: 2Mbps
Operating Frequency	2402 ~ 2480MHz
Number of Channel	EDR module: 79 BLE module: 40
Output Power (Peak)	BR/EDR module: 0.880dBm BLE module: 2.655dBm
Antenna Type	FPC Antenna
Antenna Gain	EDR module: 2.83dBi Maximum peak Gain BLE module: 2.02dBi Maximum peak Gain
Antenna Connector	N/A
Accessory Device	N/A
Cable Supplied	AC Lines: 142cm

Note:

1. Please refer to the EUT photo document (Reference No.: 220218KH03-1&-2) for detailed product photo.
2. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.
3. Model difference: These models are only different for model name for trade purpose.

2 RF exposure limit

Limits for maximum permissible exposure (MPE)

Limits for general population / uncontrolled exposure				
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Average time (minutes)
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30
Note: F = Frequency in MHz				

2.1 MPE calculation formula

$$Pd = (P_{out} * G) / (4 * \pi * r^2)$$

Where:

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

Classification:

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.

3 Calculation result of maximum conducted power

The antennas provided to the EUT, please refer to the following table:

Function	Frequency Band	Antenna Gain (dBi)	Antenna Type	Transmit and Receive Chain	Maximum AVG Power(dBm)
Bluetooth-LE	2400~2483.5MHz	2.02	FPC	1TX,1RX	2.655
Bluetooth-EDR	2400~2483.5MHz	2.83	FPC	1TX,1RX	0.880

Module of UUT	Max power (mW)	Antenna gain (dBi)	Distance (cm)	Power density (mW/cm ²)	Limit (mW/cm ²)
BLE module	1.8428	2.02	20	0.000584	1.0
BR/EDR module	1.2246	2.83	20	0.000467	1.0

These modules can transmit simultaneously:

Module of UUT	Power density (mW/cm ²)	Total Power density (mW/cm ²)	Limit (mW/cm ²)
BLE module	0.000584	0.00105	1.0
BR/EDR module	0.000467		

Conclusion:

Therefore, the worst-case situation is 0.00105 mW/cm², which is less than "1". This confirmed that the device compliance with FCC 1.1310 MPE limit.



HWA-HSING

Test Report No.: 220218KH03-SE-US-01

Appendix – Information on the Testing Laboratories

We, [Hwa-Hsing \(Dongguan\) Co., Ltd.](#), A global provider of TESTING and CERTIFICATION services for consumer products, electronic products and wireless information technology products. Adhering to the core values "HONEST and TRUSTWORTHY, OBJECTIVE and IMPARTIALITY, RIGOROUS and AFFICIENT", commitment to provide professional, perfect and efficient comprehensive ONE-STOP solution of TESTING and CERTIFICATION services for Manufacturers, Buyers, Traders, Brands, Retailers. Assist client to better manage risk, protect their brands, reduce costs and cut time to over 150 markets in global. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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